

Data Evaluation Report

000534

Compound DEF (tribufos)

Citation

Acute four-hour inhalation toxicity study with technical grade DEF in rats, D.L. Warren, Mobay, Corporate Toxicology Depart. Study number 90-042-HQ, Report # 100593, Dec 26, 1990, MRID 417823-01

Reviewed by *[Signature]* 8/28/91
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Core classification Guideline

Conclusion

Doses tested; males 2920, 5690 & 6030 mg/m³, females 1590, 2920 & 3190 mg/m³. Signs indicative of cholinesterase inhibition seen at all doses. LC₅₀ Males 4650 (1410-6180) mg/m³ and Females 2460 mg/m³

Materials

DEF, Technical, clear pale yellow liquid
Batch # 85R-26-39
98.8% active

Young adult male and female Sprague-Dawley rats (Sas:CD(SD)BR) from Sasco Inc.

Experimental Design

Six males and six females were exposed, nose only, for a single exposure of four hours and observed for 14 days post dose. Actual concentrations and particle distribution were as follows:

| Actual concentration (mg/m ³) | Estimated percent of particles less than: | | Animals Exposed | |
|---|---|-----|-----------------|---------|
| | 1um | 2um | | |
| 1590 | 23 | 78 | ----- | Females |
| 2920 | 20 | 71 | Males | Females |
| 3190 | 18 | 69 | ----- | Females |
| 5690 | 21 | 75 | Males | ----- |
| 6030 | 21 | 75 | Males | ----- |

Six males and 12 females were utilized as untreated controls.

"Technical grade DEF was generated as a liquid aerosol by nebulization (Rhema-Labortechnik, Hofheim, West Germany)."
"Analytical concentrations of generated atmospheres were assessed by taking samples near the rats' breathing zone within the chamber. Samples were collected hourly (at a

minimum) during exposure. Millipore HAWG filters (pore size of 0.45 um) were used at a sampling rate of approximately 1.0 Lpm. DEF concentrations were determined by liquid chromatography according to Mobay Chemicals Division Report Number 100578." "The distribution of sample size within the chamber was determined with a TSI [5] Aerodynamic Partical Sizer (Model 3310) and Diluter (Moder 3302) interfaced with an IBM PS/2-50."

Results

Analytical concentration and partical size distribution are presented in table 3 from the report.

Clinical signs in males and females are summarized in tables 4 and 5 respectively from the report.

Animal body weight and mortality data are summarized for males and females in tables 6 and 7 respectively from the report.

Gross observations in males and females at termination are summerized in tables 8 and 9 respectively from the report.

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